

Appl. No. 10/604,439
Amtd. dated July 06, 2006
Reply to Office action of March 06, 2006

Amendments to the Claims:

1. (currently amended) A method for Auxiliary-powered Signal Triggered PCI (Peripheral Component Interconnect)-Express Power Management (PM) (ASTPM) (Power Management)-using a PCI (Peripheral Component Interconnect) traditional level triggered PM mechanism in a computer system, the computer system including a PCI level triggered PME (Power Management Event) controller and a PCI ASTPM Express Root Complex, the method comprising:
 - converting an auxiliary-powered wakeup signal generated by the PCI ASTPM Express-Root Complex into a Pseudo-PME signal, the auxiliary-powered wakeup Beacon-signal asserting the Pseudo-PME signal so that a voltage of Pseudo-PME signal changes from a first level to a second level;
 - providing a Pseudo-PME line electrically connecting an output of the PCI ASTPM Express-Root Complex with a PME input of the PCI PME controller for transmitting the Pseudo-PME signal to the PCI PME controller, the PME input receiving PME signals generated by other level triggered PCI compliant devices through a PCI Bus of the computer system; and
 - before the computer system is under the control of an operating system, de-asserting the Pseudo-PME signal so that the voltage of the Pseudo-PME signal changes from the second level to the first level;wherein the first level and the second level of the voltage of the Pseudo-PME signal are PCI compliant with the level triggered PME controller.
- 25 2. (original) The method of claim 1 wherein the PCI PME controller is a chipset of the computer system.
3. (currently amended) The method of claim 1 further comprising providing a sequential

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circuit to convert the auxiliary-powered wakeup Beacon signal into the Pseudo-PME signal.

4. (original) The method of claim 3 wherein the sequential circuit is a latch or a flip
5 flop.

5. (original) The method of claim 1 further comprising providing a timer to control the time interval between asserting and de-asserting the Pseudo-PME signal.

10 6. (currently amended) The method of claim 1 further comprising converting a pulse of the auxiliary-powered wakeup Beacon signal into a lower frequency pulse to control a time interval between asserting and de-asserting the Pseudo-PME signal.

15 7. (currently amended) The method of claim 6 further comprising providing a synchronizer to convert the pulse of the auxiliary-powered wakeup Beacon signal into the lower frequency pulse.

20 8. (original) The method of claim 6 wherein the lower frequency pulse is an active-low pulse and functions as the Pseudo-PME signal in the computer system.

9. (original) The method of claim 1 further comprising utilizing a main power recovery related signal to control a time interval between asserting and de-asserting the Pseudo-PME signal.

25 10. (original) The method of claim 9 wherein the main power recovery related signal is a PWROK signal of the computer system.

11. (original) The method of claim 9 wherein the main power recovery related signal is a

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PSON signal of the computer system.

12. (original) The method of claim 9 wherein the main power recovery related signal is an RST signal of the computer system.

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13. (original) The method of claim 9 wherein the main power recovery related signal is a BIOS (Basic Input Output System) driven signal of the computer system.

14. (original) The method of claim 1 wherein the PCI PME controller includes an event 10 register which can be set by the PCI PME controller when the Pseudo-PME signal is asserted but cannot be cleared when the Pseudo-PME signal is de-asserted, the method further comprising clearing the event register with computer code resident in a memory of the computer system.

15 15. (original) The method of claim 14 wherein the computer code is a device driver of the computer system.

16. (currently amended) A computer system comprising:

a PCI PME controller having a PME input;
20 a PCI auxiliary-powered Signal Triggered Power Management (ASTPM) Express Root Complex having an output for outputting a generated Beacon signal;
a sequential circuit electrically connected to the output of PCI ASTPM Express-Root 25 Complex, the sequential circuit having an output for outputting a Pseudo-PME signal of a first voltage level or a second voltage level according to the Beacon signal; and
a Pseudo-PME line electrically connecting the output of the sequential circuit to the PME input of the PCI PME controller;
wherein the first voltage level and the second voltage level are PCI compliant with

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the level triggered PME controller.

17. (currently amended) The computer system of claim 16 wherein when the sequential circuit inputs a Beacon signal from the PCI ASTPM Express-Root Complex, the Pseudo-PME signal is changed from the first voltage level to the second voltage level.
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18. (original) The computer system of claim 17 further comprising a timer connected to the sequential circuit to control when the Pseudo-PME signal is changed from the second voltage level to the first voltage level.
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19. (original) The computer system of claim 17 wherein a main power recovery related signal is utilized to control when the Pseudo-PME signal is changed from the second voltage level to the first voltage level.
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20. (original) The computer system of claim 17 wherein the PCI PME controller further comprises an event register, the event register being set when the Pseudo-PME signal is changed from the first voltage level to the second voltage level, and the computer system further comprises a memory comprising computer code executed by the computer system when the Pseudo-PME signal changes from the second voltage level to the first voltage level, the computer code clearing the event register.
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